Disclosures based on the TNFD recommendations

Jul. 2025

CHUGAI PHARMACEUTICAL CO., LTD.

Governance system for Nature-related issues

The Chugai Group is placing sustainability at the center of its business activities and is implementing the following system for protecting the global environment, including Nature-related issues.

The Board of Directors conducts deliberation of policy in regard to sustainability and monitoring of progress and, it is responsible for the decision-making function regarding the most important management issues, including risks and opportunities of global environmental preservation related to nature issues, and supervises business execution by receiving regular quarterly reports on business execution status and reports on important decisions made at the Executive Committee.

The Executive Committee conduct deliberation of sustainability related plans and individual policies and, it makes important decisions regarding company-wide management strategies and business execution including risks and opportunities of global environmental preservation related to nature issues.

The Sustainability Committee and the Risk Management Committee work under the Executive Committee to formulate strategies for more specific and specialized matters and oversee their promotion. The Sustainability Committee (four times a year) formulates and executes policies and strategies related to sustainability. It also submits proposals to the Executive Committee and reports to the Board of Directors. The Risk Management Committee oversees risk management, and promotes activities to identify and measure major risks. It is also responsible for deliberations at the Executive Committee and reports to the Board of Directors.

Please refer to the following website for further details on the Sustainability Promotion System.
Sustainability Promotion System

Governance for stakeholders

Guided by our Environment, Health and Safety Policy, the Chugai Group contributes to global environmental conservation as set forth in the Chugai Group Code of Conduct, and aims to promote health management through improved workplace safety and health, which are part of respect for human rights. Under the EHS promotion system, we are proactively working on minimizing our impact on the global environment, maintaining and improving the health of our employees, and promoting a safe working environment.

In 2019, we formulated “Chugai Group Human Rights Statement” based on the United Nations Guiding Principles on Business and Human Rights. We supports and respects international norms on human rights, such as the International Bill of Human Rights and the International Labour Organization (ILO)’s Declaration on Fundamental Principles and Rights at Work, as well as the ten principles of the United Nations Global Compact, and conducts business based on the principle of respect for human rights.

The executive officer in charge of Chugai Pharmaceutical Co., Ltd.’s Risk and Compliance Department acts as the supervisory manager of human rights. Under said executive officer’s direction, the Risk and Compliance Department is responsible for formulating group-wide policies on respecting human rights respect, conducting human rights due diligence, and developing programs to correct human rights violations. The results of human rights due diligence are reported by the department to the Compliance Committee, which directs the measures to prevent, mitigate, and correct human rights risks as necessary. Key human rights policies and measures, and cases of human rights violations are also reported to the Executive Committee and the Board of Directors.

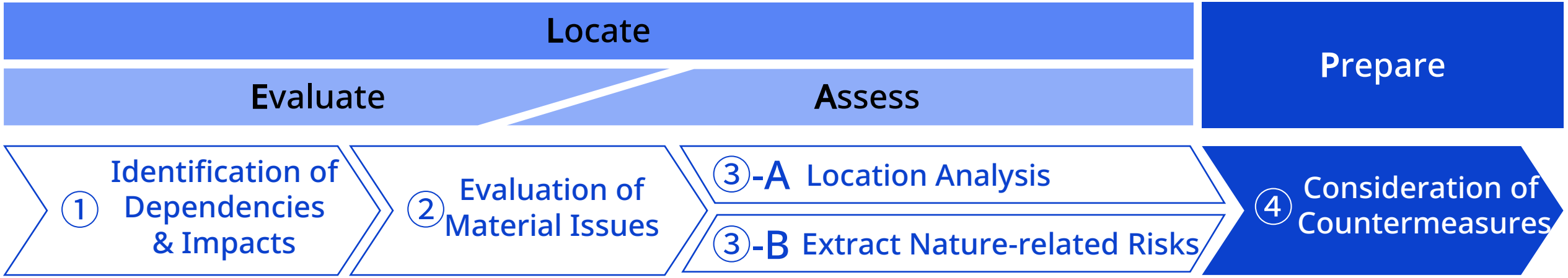
Please refer to the following website for further details on the Chugai Group Human Rights Initiatives.
Chugai Group Human Rights Initiatives

Approach in TNFD analysis

The Chugai Group is working to identify and assess Nature-related risks. We analyzed Nature-related issues in our value chain based on the LEAP approach, advocated by TNFD, and performed according to the following procedure.

① Identification of Dependencies & Impacts
② Evaluation of Material Issues
③-**A** Location Analysis, ③-**B** Extract Nature-related Risks
④ Consideration of Countermeasures

First, a Nature-related risk assessment tool was used to identify “Dependencies” and “Impacts”. We investigated business risks that were deemed to have a significant impact on the Chugai Group, and evaluated the importance of Nature-related risks. Based on these approaches, the Chugai Group identified key issues related to nature. We analyzed our priority areas for direct operations using nature related public tools for material issues identified and identified areas with potential high risk.



① Assessment results on Nature-related Risks

We identify issues based on the concept of double material issues (“Dependencies" and “Impacts“) Using ENCORE* as a natural risk assessment tool, we assessed key natural issues across our value chain (VC) and created a heat map.

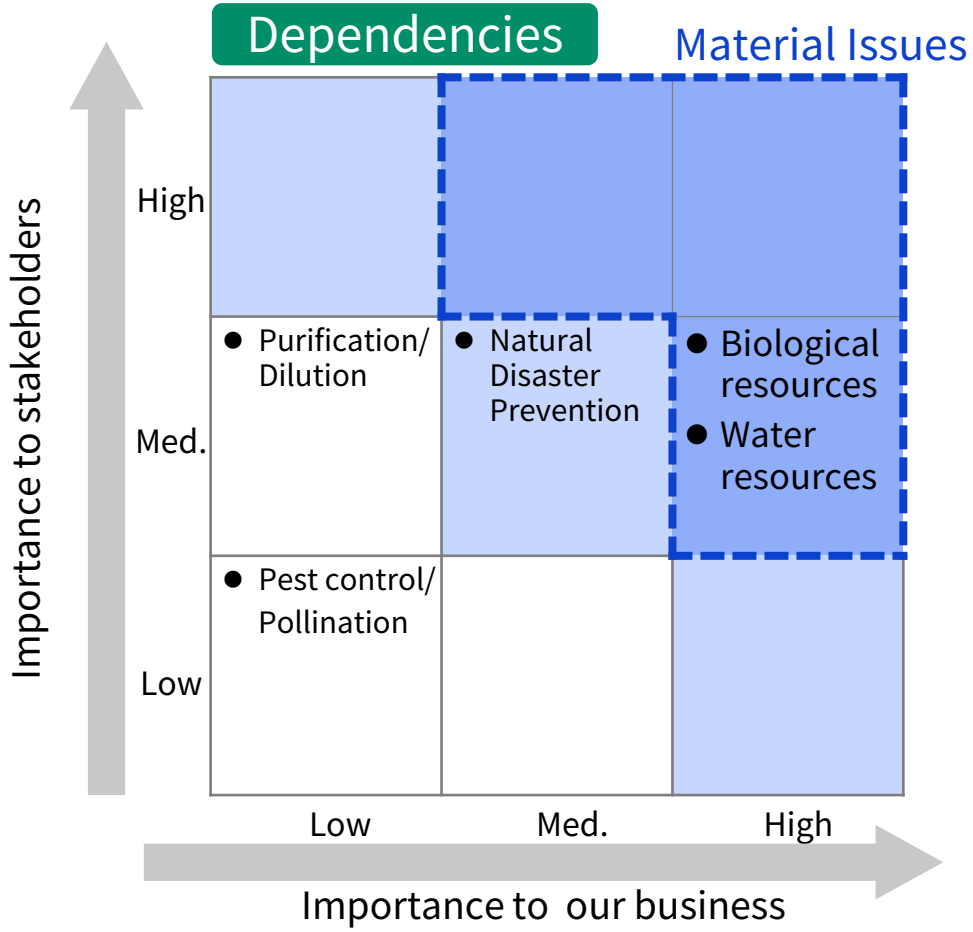
Risk Level
Low → High

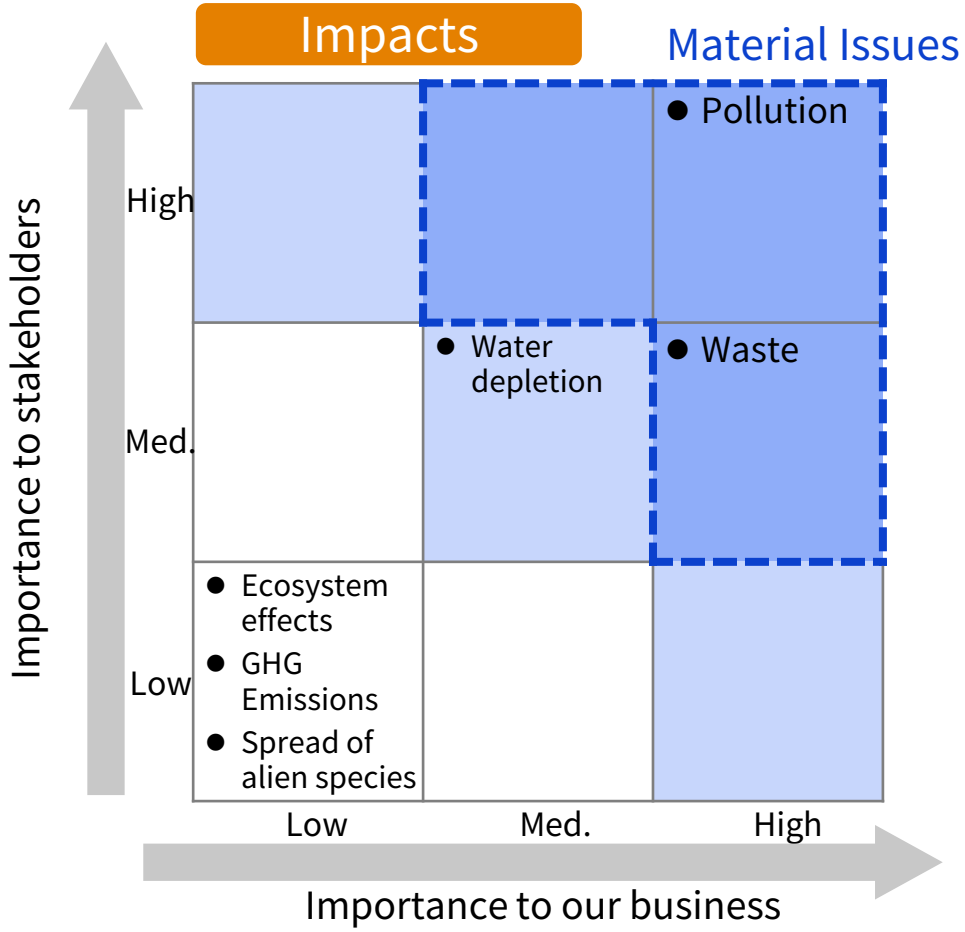
Items			Dependencies: Biological resources	Water resources	Purification /Dilution	Natural Disaster Prevention	Pest control/ Pollination	Impacts: Ecosystem effects	Water depletion	GHG Emissions	Pollution	Waste	Spread of alien species
Upstream VC	Raw materials	Agricultural products											
		Forest products											
		Aluminum											
	Processed products	Basic chemicals											
		Chemical manufacturing											
		Special chemicals											
	Container and packaging	Packaging paper											
		Metal/ Glass container											
Direct Operation	Life Science manufacturing												
	Pharmaceutical manufacturing												
Down stream VC	Truck transportation												
	Health Care facilities												

*ENCORE：A tool developed by the UNEP, etc. to collectively evaluate the results of various existing tools regarding nature-related risks.

② Evaluation of material issues

To identify material issues for the Chugai Group, in addition to evaluating Dependencies and Impacts using ENCORE, we investigated risk cases that were likely to have a significant impact on our own businesses, and evaluated the scale of the impact on our businesses should Nature-related risks materialize. The results obtained were summarized on two axes: “Importance to stakeholders" and “Importance to our business." Based on the material map, we have positioned four Nature-related material issues: Biological resources, Water resources, Pollution, and Waste





③-A: Location analysis

To address the "identification of priority regions" required by the TNFD, we conducted an evaluation to determine whether corporate activities in the Chugai Group's direct operations are located in places that are sensitive to the identified key issues. Using IBAT* and other tools, we analyzed the seven Chugai Group research laboratories and plants and identified potentially high-risk areas (priority areas).

	Themes identified as material issues		Themes identified as issues next to material issues
	Pollution, Wate, Biological resources	Water resources	Water depletion
Issues	Water pollution/Water ecosystem	Water withdrawal	
Analytical reasons	Chemical and genetic contamination can spread by outflow to surrounding water bodies and adversely affect biological resources.	Water withdrawal is relevant to all locations, and the tools for risk assessment are extensive, and it is common to include it in the evaluation.	
Analytical methods	**Water Use** ・To identify water storage dams and water withdrawal sites for agricultural water and domestic water downstream of business sites **Freshwater Ecosystem** ・To identify protected areas in an area of approximately 25 km downstream of watershed rivers of business sites that require the preservation of biodiversity **Marine Ecosystem** ・To identify the habitat of mangroves and corals in an area of about 25 km downstream of watershed rivers of business sites	**Water Supply / Demand** ・To evaluate the ratio of water withdrawal to water resources in the basins of business sites **Protected Areas** ・To identify protected forests in the upstream water basins of business basins watershed rivers are identified **Water Source** ・To identify the source of water used at the site and the source of water upstream of the river in the vicinity of the site with reference to administrative documents, etc.	

※IBAT：Integrated Biodiversity Assessment Tool

③-A: Location analysis

Water pollution/Water ecosystem

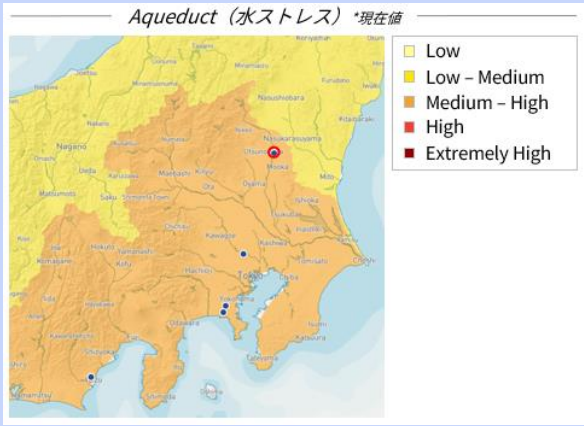
To evaluate the presence or absence of protected areas and reservoirs in the downstream of the target site using tools (such as IBAT* and Global Dam Watch)

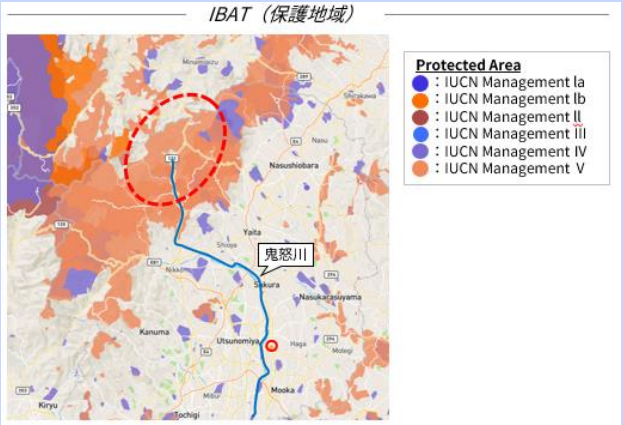
Ex.） Utsunomiya plant

Water withdrawal

To confirm the level of water stress in the target locations and the presence or absence of protected areas in upstream water sources using tools (such as IBAT* and Aqueduct)

Ex.） Utsunomiya plant





*IBAT：Integrated Biodiversity Assessment Tool

③-A: Identification of potentially high-risk areas

Based on the results of the location analysis, we have identified sites that correspond to areas with high potential risk (priority areas) for “Water pollution / Water ecosystem” and “Water withdrawal”.

●：With potential risk
—：Without potential risk

#	Site Name	Water pollution/Water ecosystem			Water withdrawal	
		Risk Evaluation Indicators			Risk Evaluation Indicators	
		Water Use	Freshwater Ecosystem	Marine Ecosystem	Water Supply / Demand	Water Source
1	Chugai Life Science Park Yokohama	—	—	—	—	—
2	Shonan Health Innovation Park*	—	—	—	—	—
3	Ukima Research Lab./Ukima Plant	—	●	—	—	—
4	Fujieda Plant	—	—	—	—	—
5	Utsunomiya Plant	●	—	—	—	—
6	Chugai Pharmabody Research Pte. Ltd.	—	—	●	—	—
7	Chugai Pharma Technology Taizhou Co., Ltd.	—	—	—	—	●

*It was established as a research base in Shonan Health Innovation Park

③-B: List of Potential Nature-related Risks Dependencies

With reference to the classification of Nature-related risks in TNFD, we examined the impact of each risk on the Chugai Group's business. In our company, we identify, analyze, and evaluate Nature-related risks based on short-term (1 to 3 years), medium-term (3 to 5 years), and long-term (5 to 10 years or longer) time frames. We will be analyzing natural opportunities in the future.

Material issues	Scope of business	Time*1	Potential Nature-related Risks
Biological resources	Upstream VC	Short	・Deforestation in lumber production such as cellulose and pulp raw materials used ・European regulations for the prevention of deforestation(EUDR) in soybean and wheat
		Medium	・Ecosystem destruction due to overharvesting of natural resources used for quality testing reagents
		Long	・Suspension of investments and loans to companies because such companies are considered to contribute to loss of biodiversity due to deforestation, water pollution, etc.
	Direct Operation	Short	・Administrative action due to violation of the Cartagena Law*2 concerning the use of living modified organisms
Water resources	Direct Operation	Medium	・Water withdrawal restriction and shutdown in critical water scarcity region

*1 Time when risks are expected to become apparent：Short-term (1 to 3 years), Medium-term (3 to 5 years), Long-term (5 to 10 years or longer)

*2 Act on the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms

③-B: List of Potential Nature-related Risks Impacts

Material issues	Scope of business	Time*1	Potential Nature-related Risks
Pollution	Upstream VC	Short	・Water contamination due to the use of agro-chemicals in the production of soybean and wheat
		Short	・Water contamination by wastewater from contract manufacturers
	Direct Operation	Short	・Water contamination due to flowing of chemical substances into rivers caused by inappropriate wastewater treatment at research facilities and plants
		Medium	・Impact on the surrounding ecosystem due to a large-scale river influx of chemical substances caused by a water disaster or fire at a laboratory or plant
	Downstream VC	Medium	・Environmental pollution caused by inappropriate disposal of products
Waste	Downstream VC	Short	・Environmental pollution caused by the atmosphere and flowing of incinerated ash from products ・Pollution of rivers and the sea due to inappropriate management of plastic waste (PTP*2, rubber, etc.)

※1 Time when risks are expected to become apparent：Short-term (1 to 3 years), Medium-term (3 to 5 years), Long-term (5 to 10 years or longer)

※2 Press Through Pack

Dependencies

④ Current approaches to potential Nature-related risks

With additional analyses of nature-related risks, we will implement appropriate initiatives through ongoing collaboration with relevant business parties.

Material issues	Scope of business	Examples of current approaches
Biological resources	Upstream VC	・Visualize the structure of the entire supply chain ・The promotion of green procurement is specified in the purchasing policy ・Acquiring supplier's commitment to the preservation of biodiversity
	Direct Operation	・The Cartagena Protocol was described in the policy on biotechnology in R & D and pharma manufacturing. ・Formulation of regulations for handling of investigational products and regenerative medical products that fall under the Cartagena Act, and handling of accidents, etc. ・Prevention of discharge of pathogenic microorganisms or genetically modified organisms and appropriate disposal as industrial waste after inactivation treatment
Water resources	Direct Operation	・Target reduction of water withdrawal by 2030 (15% reduction from 2019) ・Reducing water use through rainwater reuse ・Conducted forest maintenance activities in watershed areas at the Fujieda Plant and Ukima Plant

④ Current approaches to potential Nature-related risks

Material issues	Scope of business	Examples of current approaches
Pollution	Upstream VC	・Visualize the structure of the entire supply chain ・The promotion of green procurement is specified in the purchasing policy. ・Require Supplier to comply with the Code of Conduct ・Conduct supplier EHS and compliance risk assessment
	Direct Operation	・Wastewater monitoring in accordance with the Water Pollution Control Law and regulations ・Implementation of WET test[*1] once a year at all research laboratories and plants ・Appropriate management and treatment of hazardous chemical substances and implementation of measures to reduce their use based on guidelines
		・Establishment of operation manuals for sluice gates to prevent the outflow of abnormal wastewater in an emergency
	Downstream VC	・Provision of SDS to suppliers[*2], Yellow Card[*3]
Waste	Downstream VC	・Switching to environmentally friendly packaging materials centered on PTP, plastic bottle, aluminum pillow, and syringe blister packaging

*1 Whole Effluent Toxicity　*2 Document describing the appropriate handling information
*3 Document describing the emergency response

Enterprise risk / Nature-rerated risk and opportunity management process

The Chugai Group has introduced Enterprise risk management (ERM) framework that visualizes all risk relating to business activities and manages it integrally to maximize corporate value. We have formulated the Risk Appetite Statement to clarify policy on risk preferences with the aim of creating a healthy risk culture.

We categorize risks to be addressed on a Company-wide basis into strategic risk and operational risk, identify, and visualize these risks in a centralized manner, and engage in Company-wide discussions to promote efficient risk management. "Strategic risk" refers to risks inherent in strategic decision-making and risks that could impede execution of strategies. Operational risk refers to risks that impede the smooth operation of business activities. We are working every day to appropriately manage these risks. We recognize and manage Nature-related risks as important risks in our company-wide risk management, and position them as operational risks [(6) Global Environmental Issues].

Please refer to the following website for further details on the Chugai Group's business risks.
Business Risks

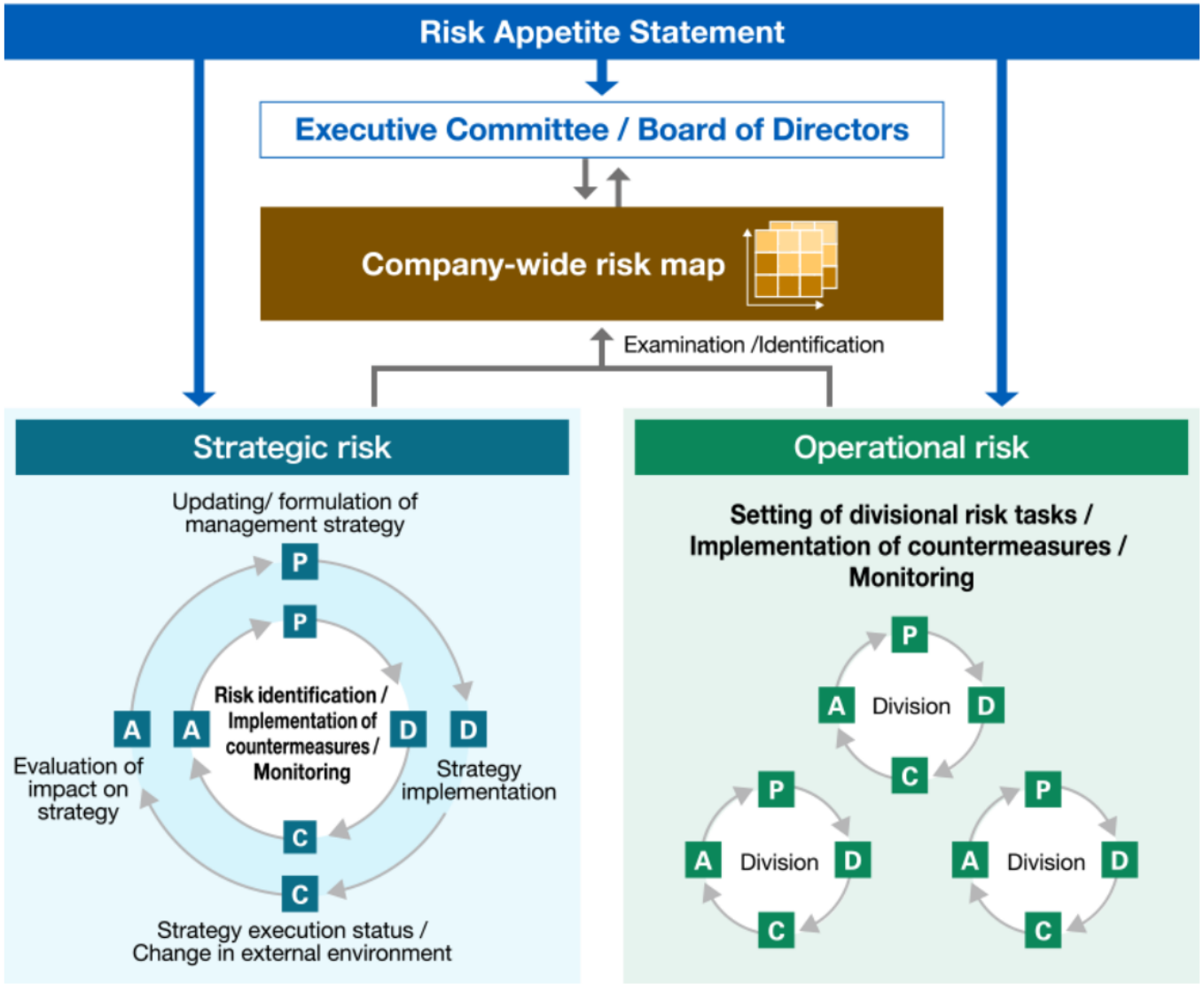
Enterprise risk / Nature-rerated risk and opportunity management process

Chugai has established the Risk Management Policy and Risk Management Regulations and set up a Risk Management Committee as a corporate management committee, as well as Division Risk Management Committees in each division and at subsidiaries in Japan and overseas.

The Risk Management Committee monitors risk management in each division with a Company-wide perspective, evaluates reports from the Division Risk Management Committees, and submits reports to the Executive Committee as necessary. It also identifies Group-wide risk issues as “Chugai Group Risk & Compliance Challenges” that may have a material impact on management, taking into consideration the status of response by the relevant divisions and trends in the industry and external environment, and submits progress reports on Company-wide measures to the Executive Committee.

Division Risk Compliance Management Committees create and quantitatively evaluate risk maps that identify the risks in the business activities of their respective divisions. If Nature-related risks are judged to be the risks to be prioritized, to address priority risks, which are division risk issues, the Division Risk Management Committees draw up annual response plans and submit reports as needed on the progress of the plans to the Risk Management Committee. The Chugai Group considers protection of the global environment to be an important foundation supporting all of its business activities. The progress of countermeasures against Nature-related risks is periodically reported from the departments in charge to the Executive Committee and the Board of Directors once a year, in addition, important matters are reported as needed.

Enterprise risk / Nature-rerated risk and opportunity management process



Quantitative targets and goals

Among the core disclosure indicators for TNFD, the Chugai Group is disclosing Air pollution emissions, Industrial waste emissions, GHG emissions, Wastewater volume, Water withdrawal in water-stressed areas, and The amount of plastic containers and packaging used in a collection of sustainability-related data. For indicators that are difficult to disclose, we will collect data and conduct more detailed analyses in the future to prepare for disclosure.

The Chugai Group has identified three priority issues:

・Climate change countermeasures (prevention of global warming)
・Use of renewable/recycled resources (resource conservation and waste management)
・Biodiversity protection (reduction of environmental burden).

We have established objectives for each of these issues.

Please refer to the following website for further details on the Chugai Group's environmental goals.
Mid-Term Environmental Goals 2030

Future perspectives

In line with the TNFD's final recommendations, we will continue to enhance analysis and disclosure. Specifically, they consider strategies through scenario analysis and determine measures to address risks, target setting, and management indicators.

Appendix: Terminology

Dependencies

Nature-related themes		Examples of relevant business activities/risks
Ecosystem services	Items	
Supply base	Biological resources	・Use of natural resources (such as wood, forest products, and seafood) ・Use of rare plants/animals or plants traditionally used by the native people (Use of genetic resources in the development of new drugs, use of useful horticultural and agricultural breeds)
	Water resources	・Arrangement water available by irrigation ・Use of industrial water in product manufacturing
Adjustment	Purification/ Dilution	・Functions to decompose and dilute for pollutants discharged from plants
	Natural Disaster Prevention	・Functions of ecosystem to recharge water sources and prevent landslides ・Climate-adjusting functions of ecosystems
	Pest control/ Pollination	・Prevention of the spread of pests and diseases that adversely affect the industry ・Functions of insect pollinators

Appendix: Terminology

Impacts

Nature-related themes		Examples of relevant business activities/risks
Impact Driver	Items	
Usage change	Ecosystem effects	• Destruction of forest by procurement of wood and mineral resources • Loss of habitat and species extinction caused by forest development • Development of areas of high conservation value (such as habitat of rare organisms) • Increase in flooding and landslides due to decrease in riverside forests, protected forests, floodplains, urban green areas, etc.
Resource usage	Water depletion	• Depletion of water resources due to excessive water withdrawal in water-stressed regions
Climate change	GHG Emissions	• Reducing carbon sinks from deforestation • GHG emissions from industrial machinery use and store operations
Pollution	Pollution	• Depletion of water resources and water pollution due to excessive water withdrawal associated with plant operations • Soil pollution due to emissions of chemical substances • Air pollution from non-GHG gas emissions
	Waste	• Waste discharge into the environment
Alien species	Spread of alien species	• Expansion of distribution of alien species due to transportation • Invasion of alien species during development of the site

Appendix: Terminology

Dependencies

Nature-related themes	ENCORE Risk items
Biological resources	Animal Energy
	Fiber, etc.
	Genetic materials
	Habitat preservation
Water resources	Groundwater Use
	Surface water use
	Water flow maintenance
	Maintenance of water quality
Purification/ Dilution	Ventilation Function
	Decomposition Function
	Dilution function
	Filtration function
	Control of noise and light
Natural Disaster Prevention	Soil stabilization
	Climate adjustment
	Control of flood and storm damage
	Landslide disaster prevention
	Gravel transport and storage
Pest control/ Pollination	Polline-mediated
	Control of infections
	Pest Control

Impacts

Nature-related themes	ENCORE Risk items
Ecosystem effects	Terrestrial ecosystem
	Freshwater ecosystem
	Marine ecosystem
	Noise, light pollution, etc.
Water depletion	Water use
GHG Emissions	GHG
Pollution	Water pollution
	Soil pollution
	Non-GHG air pollution
Waste	Solid waste
Biological resources	Other resource use

INNOVATION BEYOND IMAGINATION

CHUGAI PHARMACEUTICAL

A member of the Roche group